NEW EXPERIMENTS AND USEFUL OBSERVATIONS CONCERNING Sea-Water MADE FRESH,

According to the Patentees Invention:

In a Discourse humbly Dedicated to His Majesty, the KING of *GREAT BRITAIN*, &c.

By *Nehemiah Grew*, M.D. Fellow of the *Colledge* of *Physicians*, and of the *Royal-Society*.

The Ninth Edition, *Septemb.* 29.

LONDON,

Printed by *John Harefinch* in *Mountague-Court* in *Little Britain*. 1684.

TO THE KING'S

Most Excellent Majesty.

SIR,

WHEN Mr. Boyle, *with my Partners, and my self attended Your* Majesty *with the Experiment of Reducing* Salt Water *into* Fresh; *Your* Majesty *seem'd so well pleased with an Invention of that Universal Benefit, that we cannot but with our Humblest Duty acknowledge Your Gracious Reception of it; However, as Your Great Wisdom and Judgment is not easie to be surpriz'd, and Your Royal Approbation never known to be Your hasty Act of Grace;*

Your Favour and Patronage was not fully obtain'd, till with the strictest Scrutiny you had first examin'd those Hopes and Probabilities, you vouchsaf'd to incourage in Us.

But, when upon further consideration, We had obviated all Difficulties, and solv'd all Objections against this Undertaking, (which We hope will appear in this Printed Paper,) Your Majesty was Graciously pleas'd to give us your Approbation, and to order us your Letters Patents; *which Grace and Favour ought to be, and is receiv'd by Us with the deepest sense of our humble Acknowledgments and* Gratitude.

And if the Fruits of your Royal Grant has not hitherto been deriv'd to Us, 'tis partly by some Obstacles we met from the suggestions of a private Person, but more especially by the late Horrid Conspiracy, *when, not only our Loyal Apprehensions for your Majesties Danger, diverted our Thoughts from all other Concerns, but likewise we judged it a part of our Duty not to be pressing on your Majesties Goodness, or on your Ministers of State, in so Important a juncture of Affairs: But having now re-*

regained Leisure and Fredom, after the dissipation of the greatest part of our Fears, We presume a second time to lay these Endeavours at your Feet, as best Entituled to the Patronage of so great an Undertaking by your own Subjects, and best able to Recommend it to the World by your Royal Approbation.

This Experiment is in a great degree owing to the Eminent Mr. Boyle, *and indeed well worthy so Ingenious a Promoter, being so much the more the Favorite of his happy* Genius, *as it is Universally useful to Mankind; But whatever Advantages this Country, or indeed the World, may receive by it, his whole Ambition is bounded in the publick Profit, contenting himself with no other Benefit from it, than the satisfaction and pleasure of seeing it accomplish'd by his Friends.*

The Advantages in regard to Navigation, *especially in long Voyages, which are subject (through often Calms, and on several other accounts,) to distress for want of Water, and the Benefits to Sea-Towns, which are incommodated by Brackish Wa-*

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ters, Together with the Easiness, Cheapness, and Wholsomness of this prepared Water, are the principal scope of these ensuing Papers, which are Humbly Dedicated to Your Majesty's Perusal, Favour, and further Approbation, by

Your Majesties most Dutiful

and Obedient Subject,

R. FITZGERALD.

The

The fore-going Dedication, Humbly offered to His Majesty, *having discovered the Intention of this Undertaking; it remains now to satisfie all Reasonable Scruples which have been raised concerning the Wholesomness and Cheapness of* Water *thus prepared.*

The *Queries* and *Answers* follow.

Quest. 1. IF *this* Water *can be made in sufficient quantities to serve the Uses of any Ship at Sea?*

Ans. About Ninety Gallons may be Prepared in every Twenty four Hours by an Instrument of 33 Inches Diameter, which will stand under the Deck of any Ship; and it's computed that less than three Quarts is a good Allowance for any man in that time: And if a large Ship, wherein there are many men aboard, should require more Water, then two or more of the Instruments may be had upon reasonable Terms, and one man may attend several of them.

Quest. 2. *In case the Operation be by* Fire, *it may require a Skilful* Chymist, *or one knowing in such Operations, to be on Board every Ship, who will require great Wages.*

Ans. There will be no occasion for any such Person, for any Sea-man may be Instructed in an Hour or two to prepare this Water.

Queſt. 3. *It's probable that the* Engine *may be frequently out of Order, and being ſo at Sea, where Artificers and Tools are wanting to repair it, there muſt neceſſarily follow want of* Water, *which will be of Ill Conſequence.*

Anſ. This *Engine* is of ſuch Contrivance, that it's never likely to be out of Order.

Q. 4. *Can this* Engine *be of uſe in Stormy-weather?*

Anſ. Since a ſufficient quantity of Freſh-water may be ſo eaſily had by this *Engine*, the Mariners will be careful to make a good Proviſion of it before-hand; however, 'tis not to be doubted, but it will anſwer the worſt Accidents of the greateſt Storms, and have its Effect ſufficiently in the worſt Weather, eſpecially conſidering that in ſuch deſperate Extremities men muſt be content with ſmaller Allowances.

Queſt. 5. *The Operation being by* Fire, *it may endanger the Ship, and the Smoak be very offenſive?*

Anſ. The *Engine* may eaſily be placed in any Ship without danger of *Fire*, or offence of Smoak.

Queſt. 6. *Will not the Charge of this Inſtrument and Materials belonging to it be very great?*

Anſ. It is difficult to make exact Anſwer to this, but an Inſtrument of the largeſt Size, with all the Materials belonging to it, will not amount to above 18 pound, and may laſt many years, and according to the Rates of Ships, they may be proportion'd both in Bulk and Price. And where it may be thought neceſſary to make uſe

of

of this Experiment on Shore, for Brewing, or other uses of a Family, Instruments and Materials may be very large, and very much cheaper on Shore than at Sea.

Quest. 7. *Will not the Fewel be very Chargeable, and take up much room in the Ship?*

Ans. The quantity of about ninety Gallons of Water may be prepared with less than three pecks of Coals, and proportionably with any other Fire; and the whole Room that will be taken up in the Fire, and in the few Casks to be imployed in the making and receiving this Water, will be less than the tenth part of Stowage now employed for Water only, and upon a strict Computation made by the Persons concern'd in this Grant, the whole charge of Water will come to about a farthing *per* Gallon.

Quest. 8. *Will not the Ingredients take up much Room, and be very Chargeable?*

Ans. A Vessel less then a Barrel may contain enough of the Ingredients to carry a Ship to the East *Indies* and back again; and the Ingredients for near one hundred Gallons of this *Sea-water* will not amount to above 12 Pence, and will be cheaper when great quantities are used at Land.

Quest. 9. *Admitting this Preparation of Water may be made, and in sufficient Quantities, it may be doubted whether it be wholsome?*

Ans.

Anſ. The Famous Lord *Bacon*, having written learnedly of this Subject, had not the leaſt thought that the Sea-water, after it had been Diſ-ſalted, without any Noxious addition, was Unwholeſom: and it neither now is, nor ever was really doubted whether it were wholeſom; However, becauſe invidious Perſons, who are no well-wiſhers to Ingenious Deſigns, may poſſibly raiſe Scruples, the Gentlemen who are concerned in this Grant, have purpoſely, to give Publick Satisfaction, ſent a large quantity of this Water to Doctor *King*, a very Ingenious Phyſician, who is a Member of the *Colledge*, and of the *Royal Society*; who finds,

1. That it is Lighter than moſt of the Waters about the Town.

2. That it is without Sediment, and Tranſparent as any other Waters.

3. That it Lathers (as they call it) with *Waſh-Ball* or *Soap*, better than other Water, and with leſs *Soap*.

4. That *Sugar* diſſolveth ſooner in it, than in other *Water*.

5. That it *Evaporates* ſooner than common *Water*.

6. That whereas common *Water* Putrifies and yields a Stinking Smell within a few Weeks, this has continued Sweet and unaltered ſeveral Months, and may yet do ſo much longer, being ſtill in as good condition as it was above Eight

Months

Months ago, *November* the Fifteenth, 1683.

7. That it makes *Gellies* as firm and good as any Water.

8. That it Boils Pease to Tenderness, Beef, Mutton, Fish, and all other Meat, without giving it an ill *Taste* or *Colour*.

9. That it has no kind of ill *Taste* in it self, and Boils in *Milk* without Curdling.

10. That *Flowers*, *Plants*, and all *Vegetables* grow in it at least as well as any other *Water*.

11. And that small *Animals* live and grow in it.

Several men of great Quality, *viz.* The Earls of *Shrowsbury*, *Westmorland*, *Mulgrave* and *Burlington*, the Lord *Dunbar*, Lord *Lumley*, Lord *Falconbridge*, and Lord *Chumley*, besides very many Gentlemen of Quality, who frequently drink Water, Officers of *Sea*, and *Physicians*, have *Drunk* of this *Water*, without being in the least indispos'd after it; but, lest any doubts may remain after this, of the *Salubrity* of the said *Water*, the following Testimonial of these Learned and Eminent *Physicians*, is here inserted.

Since the former Editions of this Treatise, several Persons of Quality, eminent Merchants, most of the Forreign Ministers, Seamen, and others, have eat of Pease, Fish, and Flesh boyled in this prepar'd Water; and some hundreds have drunk of it often, and in great quantities, without the least ill effect by it; and several of the *East* and *West India* Ships

Ships now ready to ſail, have already agreed with the Patentees, and have taken Engines from them: and ſome ſince they have had them on board their Ships, have made Tryal in the *Downs* of the Operation of the ſaid Engine at Sea, to the great ſatisfaction of ſeveral Perſons reſiding in and about *Deal*, and other Maritime Places near the *Downs*.

The Approbation of the Colledge of Phyſicians, *and other* Doctors *of* Phyſick, *Practiſing in and about* London.

WHereas we have received an account in a *Gazet* publiſhed ſome Months ſince, that the Honourable *Robert Fitz Gerald*, Eſq; hath found out the way and means of reducing *Salt-water* into *Freſh*, in quantities ſufficient to ſerve Ships at Sea. And for as much as ſome Perſons may poſſibly make a doubt, if the ſaid Water be wholſome after the Salt is taken out of it. We therefore, conſidering of what general Advantage this uſeful Experiment may be, having fully inform'd our ſelves from Mr. *Boyle*, that the ſaid Experiment is made by Fire. And having alſo ſeen an account of ſome Experiments made by ſome Members of our own Body, do declare our Opinion, that We believe the ſaid Water is very wholeſome, and may be ſafely uſed. And being further acquainted by the ſaid Mr. *Boyle*, that the very few ingre-

dients

dients made uſe of in the ſaid Operation, are fixed in the Fire, and give no noxious quality to the Water; We are therefore of Opinion, that the ſame may be ſafely uſed, and is at leaſt as healthy as any other Water us'd at Sea. All which we certifie (at the Requeſt of the Honourable *Robert Fitz-Gerald.*)

Dr. *Cox*, Preſident,
Sir *C. Scarborough*, Knt.
Dr. *Daniel Whiſtler*,
Dr. *Weatherly.*
Dr. *Will. Denton.*
Sir *T. Millington*, Knt.
Dr. *Walter Needham*,
Dr. *Thomas Short*,
Dr. *Thomas Allen*,
Dr. *Edmund Dickingſon*,
Dr. *William Croone*,
Dr. *Richard Lower*,
Dr. *John Windebank*,
Dr. *Daniel Cox*,
Dr. *James Rufine*,
Dr. *Charles Conqueſt*,
Dr. *Edmund King*,
Dr. *Willoughby*,
Dr. *Tho. Sydenham*,
Dr. *Edward Tyſon*,
Dr. *Nehemiah Grew*,
Dr. *David Abercromby*,
Dr. *Andrew Creagh.*

Though Phyſick has always flouriſhed in this Kingdom, yet in this Age it is in greater Perfection than ever; being improv'd, both as to the Practical and Speculative part, by the preſent Fellows of the Famous Colledge of Phyſicians; who, being Men of great Practiſe and Eminent Learning, cannot but give full ſatisfaction to all ſuch as inquire concerning the healthfulneſs of this Water; Their Opinion being, in this particular, the more valu-

able,

able, becauſe it is to their own Diſadvantage; ſince the Brackiſh Waters of the Sea-Coaſt, and the putrifying Waters made uſe of at Sea, might probably have afforded them a great number of Patients, which may hereafter be leſſened by the uſe of this wholeſome Water.

Since the firſt Edition of theſe Papers, his Majeſty has been pleas'd to ſee ſome Experiments, which has ſo convinc'd his Majeſty of the healthfulneſs of this Water, that he has reſolved to have it generally made uſe of in his Sea-Port Garriſons; of which an account has been given in ſeveral *Gazetts*, by His Majeſties ſpecial Order.

The Benefits and Advantages of Sea-Water *made* Freſh.

MUch Stowage will be ſaved, ſo that a Ship of 50 or 60 Tun, and proportionably of greater Bulk, may take in ſeveral Tuns of Goods more than formerly they uſed to carry; which will conſiderably advance the Trade of all Merchants, and be of vaſt profit to the Maſters or Owners of Ships.

The Charge of Casks is very conſiderable, eſpecially when bound with Iron, as all Sea-Casks muſt be; And by means of this Engine, three fourths of that charge will be ſaved.

The tear and wear of Boats often going from Ship board, and frequent loſs of the Boats

and

and men in Stormy Weather, and the Opportunity of the Sea-mens being Drunk on shoar; by which many fatal accidents do happen, (by means of having this Water-Engine) will be prevented.

Ships in long Voyages have been forc'd to run many Leagues from their intended course, which much retards their Voyage, and makes them lose fair Winds, and maintain more Sea-men at charges of Diet and Wages than they have occasion for; which inconveniencies may be prevented by having Water within themselves.

Ships are often forc'd to leave their Anchors and Cables behind them, by being forc'd into dangerous Shoars upon account of taking in Fresh Water.

In the *African*, *East* and *West India* Voyages, great quantities of Fresh Water are necessary, which the Sea-men are forc'd to put above Deck for want of room, which is great hindrance to a Ships Sailing, and much endangers and weakens a Ship.

In case of Calms, which often happen in the narrow Seas, but especially near the Line, this Instrument will be of vast advantage, by affording fresh and wholsome Water, instead of that which is unwholsome and offensive.

Essex, *Kent*, and all other the Sea-Coasts, in any part of the World, that want wholesome Water,

Water, may be easily and and cheaply supplied by this means; as also *Venice*, *Amsterdam*, *Roterdam*, and all other Towns or Places that lye near the Sea, and either want good, or have Brackish Water.

In time of War, whole Navies may be relieved by this Engine, and Opportunity given of making the greatest Discoveries imaginable.

It is further to be considered, that hitherto the richest and ablest bodied Sea-men have been averse from undertaking long Voyages, by reason of endangering their Healths, and Lives, by making use of putrified Water, which inconvenience is not now to be feared, there being such hopes of useful Fresh Water by the use of this Engine; and possibly a smaller number of men may serve the use of Ships than do at present, by which much Charges will be saved to the Masters and Owners of Ships, and Merchants may Trade upon easier Terms.

In *Portsmouth*, *Rochester*, the *Fenns* of *Lincolnshire*, and any other places near the Sea, where Waters are Brackish, and consequently unwholsome, this Engine, *&c.* may be very useful, and where there is room enough to place it, very great quantities of Water may be had for the use of whole Families, and the Ingredients when used in great quantities may be afforded at a cheaper Rate.

A LETTER

A LETTER of Mr. *BOYLE*'s to the Learned Dr. *JOHN BEALE*, Fellow of the *Royal Society*, concerning *Fresh-water* made out of *Sea-water*: Printed at the desire of the Patentees.

SIR,

TO *give you a short Account* (*suitable to the little time I have to do it in*,) *of the Transaction, which I suppose must have given the rise to the Mention made of my Name in the publick* Gazette: *I must inform you, that one of my nearest Relations*, (*Captain* Fitz-Gerald) *and some other Worthy Gentlemen, having acquainted his Majesty, that They had an Invention for making* Sea-water *sweet and wholsom in great quantity, and with small charge, and that I had examin'd, and did approve the Water so prepar'd; His Majesty was pleas'd with very Gracious Expressions, to command Me to attend him with a further and more particular Information. Having readily obey'd this Order, and been made acquainted with the Objections the King thought fit to make against the Practicableness of the Invention; which, (tho a private Man had urg'd them) I should think the most Judicious that have been fram'd against it; I humbly presented to him, that I look't upon this Invention as comprizing two differing things; a* Mechanical *part, which related to the Engine it self, and the use of it a Ship-board, and a* Physical *part, which concerns*

the Potableness and Wholsomness of the Liquour. About the former of these I did not pretend to clear the Difficulties, especially such strong ones, as His Majesty had propos'd; but left it to the Patentees *to give him Satisfaction, which they were in a readiness to offer. But as to the Wholsomness of the prepar'd Water, I had made some Tryals upon the Liquour, which gave me no just Grounds of suspecting it to be unwholsom, but several Motives to believe it well condition'd, and of great use to* Navigators, *and not to them only. And having hereupon briefly acquainted His Majesty with the chief Tryals I had made to examin this* Sweetned Water, *He was pleas'd to look upon them as Satisfactory, and vouchsafed on that occasion to Discourse, as a* Virtuoso, *of the Sea and Brackish-waters, and gave me some new, as well instructive Observations about them: and in conclusion, dismiss'd the* Patentees *with a Gracious Promise of his Royal Protection, and peculiar Favour.*

To this short Narrative it now remains, that I briefly Subjoyn the chief things that perswaded me of the Salubrity of this Water, (whence may be justly and easily inferr'd, the Utility the Publick may receive by a cheap and easie way of preparing it.) First, then I consider'd that almost all the Rain-water that falls from the Clouds on the Main Ocean, and which (except perhaps in very few Places in Torrid Climates) is unquestionably receiv'd as wholsom, must be afforded by the Sea, and consequently

quently be but Sea-water freed from its Salt, (according to the famous Motto, Redit Agmine dulci.) Next I found, (as his Majesty himself had done,) that the Liquour was well tasted, and without any sensible Brackishness; and some of it continued for between 4 or 5 Months in a large Christal Bottle, that I purposely kept unstopt, and for the most part in a South Window, where it neither did, nor probably in a long time, will putrifie, or so much as appear troubled or less transparent; during which time, it was with Approbation tasted and smell'd by several Learned Physicians of the famous Colledge of London. Thirdly, I found it laver very well, which most Pump-waters, and many others that have some little (tho unperceiv'd) common Salt in them, will not do. Fourthly, this Water will boyle Pease tender, which amongst Seamen is one of the principal signs of good Water. Fifthly, In very good Ballances, with an Instrument that I purposely caus'd to be made for the nice weighing of Liquours, I found this Water far less heavy than one would expect; for if it differ'd at all in weight from the like quantity of undistill'd Water, (I speak with an If, because it is far more difficult to be exact in such nice Tryals, than the unpractic'd will imagine) the difference was not considerable, being but one part in 400, and that difference is very small in comparison of that which Navigators and learned Authors relate to be observable in natural Waters, all of them good and

 potable:

potable: I might tell you on this Occasion, that the last Great Duke *of* Tuscany, *who was an Eminent* Virtuoso, *and the Patron of the celebrated* Academy *of the* Lyncean Philosophers, *is affirm'd, among other prudent Courses that he took for his Health, whereof he was very Sollicitous, to have constantly made use of distill'd* Water, *when he us'd any* Water, *for his own Drinking. And I could add other things favourable enough to the* Patentees Water, *if Haste, and perhaps Discretion too, did not oblige me to leave them yet unmention'd, that I might now have time to say somewhat of the main thing of all that convinced me of the* Saltlessness *of the* Water *I speak of. I consider'd then,* Sixthly, *that the thing that was aim'd at by those* ingenious *men, that at differing times, and in several Countries have attempted to make Sea-water sweet, and the thing that was requir'd by proposing Recompences, or otherwise to encourage the Makers of such Attempts, was to free the Sea-water from the Brackishness without any noxious Additament: so that on all sides it was taken for granted, that the only thing that kept the Sea-water from being safely Potable, was its Brackishness. From which reflection it was natural for Me to infer a Conclusion very favourable to our prepar'd Water. For having long since written a short Discourse of the* Saltness *of the* Sea; *I had been industrious to devise ways of comparing Waters in point of Brackishness. And by these I found the*

Patentees

Patentees *water to be more free from Common-salt than Waters that are usually drunk here in* London, *of which I remember I shewed those Gentlemen an experiment that surpriz'd, as well as convinc'd them. And that which more satisfi'd me my self, was a Tryal that I carefully made, by a way, which having mention'd, but not yet (for want of opportunity) disclos'd to His Majesty, the Respect I owe Him forbids me to impart without His leave: On which account I hope you'll be content to be at present assur'd of these two Things; One, that by this way of Tryal, I found, (what possibly you will think strange;) that if there were in Water, so much as one Grain of Salt, in above two Ounces of Water,* I *could readily discover it: The other, that even by this critical* Examen, I *could not detect so much as a thousandth part of Salt in Our Prepar'd Water; whereas* I *found by Tryals purposely and carefully made, that our* English *Sea-water contain'd a* 44, *or* 45*th part of good dry Salt; or, which is all one, that* 44 *Pints, or near so many Pounds of* Marine *Water, would yield about one Pound of dry Common-Salt.*

Thus Sir, *you have a short and Art-less Account, such as my haste will permit, and the nature of the Subject requires, of my part in promoting this profitable Invention; to which* I *own my self a great well-wisher, not out of any private Interest (tho that was obligingly proffer'd me by the* Patentees,) *but as I think the bringing it into general use may prove a real Service to Mankind, upon the*

Score

Score of divers Utilities and Advantages, which yet, (tho I had leisure,) I should think very needless to enumerate to so discerning a Person as Dr. B. to whom I shall therefore hasten to subscribe my self,

SIR,

A very Affectionate Friend,

and Humble Servant,

R. BOYLE.

AFter so many forcible and convincing Testimonies in favour of this great Design, I shall make an Addition of the Approbation of His Majesty of *Great Brittain*; who, after the publication of the first Impression, having seen the convincing Proofs of the healthful Quality of this Water, hath resolv'd to have the same to be made use of in all his Sea-Port Garrisons; The which he caused to be published by express Order, in several Gazetts, and particularly in that of *Munday, Novemb.* 5. 1683.

An

An ABSTRACT out of the Gazette, *Numb.* 1676.

White-Hall Novemb. 2. 1683. HIS Majesty was pleas'd to Command the Honourable Mr. *Boyle* to attend Him, to give His Majesty an Ocular Proof of the Nicety of his way of examining the freshness and saltness of Water, and to apply it to the Sea-Water, prepar'd according to the Patentees Invention; which being done before His Majesty, his Royal Highness, and the Duke of *Grafton*, several Persons of Quality being also present, it was made apparent, by a certain prepar'd Liquid which Mr. *Boyle* had brought with him, that a Discovery could be made if there were so much as a thousandth part of Salt in a propos'd Water: By which Tryal His Majesty, finding that the Prepar'd Sea-Water, for which he has granted his Royal Patent, was at least as free from Salt as the best Waters used in this Town: received such Satisfaction as to the wholsomness of the said Water, that He was pleased to declare his Royal Intentions both to encourage the said Invention, and to have the said Water made use of in his several Maritime Garrisons, which Nature has not furnished with wholsom Water.

A Copy of a Letter from Captain *Macdonnel*; from aboard his Majesties Ship the *Greyhound*, near the Coast of *Spain*, to one of the Patentees of Sea-Water.

SIR,

FOR these Four Months past, I kept your Sea-water (for its better Tryal) Buried in my Ships Hold, where, had it not been extraordinary good, it must infallibly have been of no use, and offensive, but I'll assure you it prov'd quite contrary; for yesterday, having several both of Sea and Land Officers on board of me, I made them insensibly taste of your Water, which I pretended to be from a Spring I watered my Ship at, Ten Leagues to the Southward of Sallie; *they all affirm'd it to be as good as* Tangier *Water, the very best counted in the* Streights, *but when I discovered the Water to be yours, they hardly would give it Credit, and approv'd of it (as really it is, as good as can be drank) which they desired me to let you know.*

I am

Novemb. 3.
1683.

Your Humble Servant

Rand. Macdonnel.

The Extremity of the last Winter having occasioned the loss of the President, *a Rich* East-India *Ship, and many other of His Majesties Ships and Subjects to perish for want of* Provision *and* Fresh-Water *at* Sea, *His Majesty, for prevention of the like Misfortune, was pleased to Order the following Advice to be inserted in the* Gazette *of* March 6. 1683.

White-

White-Hall, Feb. 28.

HIS Majesty having heard several Relations of the great Distress some of his Subjects have lately been in at Sea for want of fresh Water, hath been pleased for their Relief in such Cases, to command the Patentees for the new Invention of making Sea-water Fresh, to give the most publick notice they can of the Usefulness of the said Invention, of which his Majesty has received so great satisfaction, that his Majesty is pleased that those Instruments shall be provided for his Ships and Garrisons, where they are not naturally provided with good Water. And in obedience to His Majesties Order, the Patentees do hereby give notice, That two Treatises have been written on this subject, which may be had at the *Ship* against the *Royal Exchange*, and at the Marine Coffee-house, whereunto all Persons are referred for more particular Information; in which the great benefit and many Conveniences of this Invention, the easiness, both as to the Trouble and Expence, of making the Salt Water fresh, and the Wholsomness thereof, is clearly demonstrated by the Testimony of many Eminent Physicians. To which is added, a Letter written by the Honourable Mr. *Boyle*, by which he assures

assures the Wholsomness, Durableness, and Sweetness of this Water. And a Letter from Captain *Rand. Macdonnel*, of the third of *November* 1683. from on Board the *Grey-hound* Frigat, near the Coast of *Spain*; wherein he affirms, that he kept of the Patentees Water, some that was given him, in his Ships Hold, from his leaving *England*, being four Months, and then having several Officers on Board him, gave them a taste of it, pretending it to be of the Spring near *Sally*, where he had watered, and which is as good as the best in the *Streights*, and they drank of it as such, till he discovered what it was; and then they approved of it to be as good as could be drank.

FINIS.
